Note: Recipients who have an Economic Outlook binder should place this report under the tab titled "Economic Outlook: Short Term". Those users who are on the Cost Escalators and Alternative Scenarios distribution lists will receive those reports in November.

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MEMORANDUM September 1989

ALL USERS File No.: 706.01 (#245)

Short-Term Economic Outlook - Annual Review

1. Changes from the Previous Outlook

The changes in this update mainly reflect the incorporation of the Federal Goods and Services Tax (GST), which is scheduled to be introduced on January 1, 1991. It is expected to raise inflation in 1991 by about 2.5 percentage points, and lead to slower real GDP growth by reducing consumer expenditure.

Otherwise there are relatively few changes in the forecast. Economic activity appears to be slowing as expected. High interest rates have contributed to declines in consumer expenditure and housing construction. The excessively high value of the Canadian dollar (itself partly a result of high interest rates) is seriously eroding Canada's exports. The Bank of Canada seems determined to maintain high interest rates until the rate of inflation (which has been rising in the past few months) starts to decline. This creates a significant risk that the Canadian economy will have a recession even if the United States avoids one.

Changes From May 1989 Outlook

	1989	1990	1991
Ontario Real GDP Growth*	0.0	0.0	-0.4
Ontario CPI Inflation Rate*	0.0	0.0	+2.5
Prime Interest Rate*	-0.3	+0.7	+1.7
Gov't Long-Term Bond Rate*	-0.5	-0.1	+0.5
Canadian Dollar**	+0.2	+0.8	+0.8
International Crude Oil**	+$1.20	+$0.70	+$0.80

* Difference in percentage points
** Change in value

2. Economic Growth*

	Actual	Forecast		
	1988	1989	1990	1991
Real GDP - Canada	5.0	2.7	1.5	2.7
Real GDP - Ontario	4.9(r)	2.5	1.3	3.6
Real GNP - US	3.9	2.8	1.5	3.0

* Percentage change from previous year.
r Will be revised upwards.

Fiscal and monetary restraint are visibly affecting the North American economy. In fact, the slowdown has gained considerably in breadth and depth over the past six months. Interest sensitive sectors are especially vulnerable. Real estate sales are waning, consumer and business loan demand have softened significantly and savings rates have risen. Provincial exports are straining under the dual pressures of flagging external demand and the high Canadian dollar. Moreover, the marked rise in inventories during the early part of 1989 foreshadows sluggish output and employment growth in the months ahead.

There is still no indication, however, that a recession is materializing. Interest rates have more or less stabilized, business investment for new plant and equipment remains impressive and consumers (while adjusting to the new realities) do not appear to be retrenching as they did in 1982. Assuming car sales on both sides of the border hold up reasonably well, and that businesses are able to better control stock levels, Ontario economic growth is expected to average 2.5% in 1989 and 1.3% in 1990. Nonetheless, given the importance of manufacturing to the province, Ontario will probably be outperformed by both Canada and the United States.

3. Unemployment (%)

	Actual	Forecast		
	1988	1989	1990	1991
Canada	7.8	7.9	8.7	8.4
Ontario	5.0	5.1	5.2	5.1

Unemployment rates have dipped to levels not experienced since the mid-1970s. In the United States rates have settled at around 5.2%. Canadian rates are averaging 7.6% and Ontario rates are around 5.0 to 5.1%. Further reductions, however, will become increasingly difficult to achieve. The number of jobs being created has fallen dramatically in step with moderating economic growth. The only reason jobless rates are not drifting higher is that fewer people are entering the labour market. The population of labour force age is expanding much less rapidly because of reduced immigration. Furthermore, as would-be job seekers are discouraged from looking for

employment, participation begins to decline. Therefore, despite lacklustre economic activity, jobless ratios are not forecast to increase by much.

4. Inflation - Consumer Price Index*

	Actual	Forecast		
	1988	1989	1990	1991
Ontario Composite**	4.7	5.8	5.3	7.5
Toronto	5.1	6.5	5.7	7.7
Canada	4.1	4.8	4.5	6.9
United States	4.1	5.3	4.6	3.8

* Percentage change from previous year.
** Provincial Consumer Price Index published by Statistics Canada.

While restrictive monetary and fiscal policies are clearly dampening economic growth in both the United States and Canada, they have done little to stifle inflation. Higher oil and agricultural prices have still not been fully passed through to the retail level. Federal and provincial tax hikes will also add an additional few tenths of a percentage point to inflation this year and next. Nonetheless, underlying fundamentals suggest that price increases will be moderating by year end. Wage pressures are abating somewhat, profit margins are being squeezed and raw material prices are generally retreating from earlier peaks in the face of weaker international demand and new capacity.

Toronto inflation has already begun to reflect the somewhat less robust economic and real estate activity. Price gains still exceed the national average by more than one percentage point and while this gap is narrowing it is unlikely to disappear.

The introduction of the Goods and Services Tax in 1991 is expected to add about 2.5 percentage points to the CPI inflation rate. This is because the new 9% tax on services will more than offset the reduction of the tax rate (currently 13.5%) on manufactured goods. There are also fears that this increased inflation will set off a new wage-price spiral. However, the sales tax increase will be partially offset by income tax reductions, and this should help counter worker militancy. As well, large wage increases to make up for the sales tax would be resisted by employers, because for most of them it also represents a new cost item.

5. Financial Markets

	Actual	Forecast		
	1988	1989	1990	1991
Prime Interest Rate(%)	10.7	13.3	11.6	10.7
Gov't Long-Term Bond Rate(%)	10.2	9.8	9.0	9.6
Canadian Dollar (in US cents)	81.3	84.0	82.8	80.8

Long-term interest rates have fallen sharply because of a weakening economy (implying reduced borrowing demands) and persistently sluggish US money supply growth (implying both further economic weakness and a decline in US inflation). US bond yields are expected to decline somewhat further, bottoming out in 1990 as loan demand weakens and the inflation rate retreats. While Canadian economic growth also appears to be moderating, money supply growth remains robust, creating a risk that Canadian inflation may rise significantly above its US counterpart; this risk implies that Canadian bond yields may not fall much further, barring a recession, and that spreads against US bonds may soon begin to widen.

The US prime rate began to decline in June and further gradual reductions are expected until the end of 1990 as economic activity subsides and loan demand weakens. The uncertain state of the US financial system, coupled with a prolonged period of slow money supply growth, suggest that US policy will accommodate lower short-term interest rates. Canada, on the other hand, must contend with excessive money supply growth rates and worrisome signs of spreading wage inflation. Short-term rates will eventually fall assuming the economy continues to weaken, but a more serious Canadian inflation threat and the better health of Canadian financial institutions imply that the decline in short-term rates will lag well behind the decline in US rates.

The Canadian dollar has been pushed higher by a large and widening spread between Canadian and US interest rates. While this situation may continue into the autumn of 1989, unfavourable developments are expected to force the dollar lower, starting towards the end of 1989 and continuing for the next few years. These include lower domestic interest rates, declining yield spreads, an unfavourable inflation differential, lower commodity prices and a declining trade balance.

The introduction of the Goods and Services Tax is expected to make interest rates modestly higher than they would have been otherwise. However, the overall trend of interest rates is expected to be downward, in spite of the tax. The Bank of Canada is expected to keep rates higher in 1990, even before the tax is introduced, in order to forestall inflationary pressures in 1991.

6. Energy Prices

	Actual	Forecast		
	1988	1989	1990	1991
International Crude Oil* (FOB Cost US Imports), US$ per barrel	13.25	17.00	18.20	19.30
Domestic Crude Oil (Ontario), Cdn$ per barrel	20.65	22.95	24.65	27.05
Natural Gas (Wholesale at Toronto) Cdn$ per MMBtu	3.35	2.92	3.06	3.32

* User should note that we are now focussing on the FOB cost of US imports for the international oil price. This replaces the Persian Gulf Light FOB price used in earlier Outlooks.

Since the November 1988 OPEC production agreement the price of crude oil has been rising and the price of West Texas Intermediate (WTI), the US benchmark price, jumped from US$15 per barrel last October to around US$20 in July, peaking at around US$24 in April. The latest surge in prices was not based on any substantial fundamental changes, though demand for oil has increased again in the first half of 1989, but rather on speculative forces fueled by several disruptions in production and transportation of crude. Demand for OPEC oil is expected to be stronger than last year but the cartel is expected to meet any rising demand, if not overproducing, and prices are expected to hover in the US$18-$20 range (WTI) for the rest of 1989. The crude oil market will continue to be unstable but we expect that the price of WTI will remain on average in the US$18-$20 range (in 1989 dollars) for the next five years.

Canadian crude oil prices are projected to move with the trend in international oil prices subject to exchange rate and transportation cost adjustments. Ontario Refiner's Acquisition Cost will relate primarily to posted prices in Edmonton, which in turn will be influenced by spot prices for WTI at Chicago and short-term fluctuations in supply and demand.

In recent years, natural gas prices have been under strong downward pressure as a result of a North American natural gas surplus, deregulation and depressed oil prices. A downward revision of our short-term forecast for the wholesale price of natural gas at Toronto results primarily from the change in contractual arrangements between Western Gas Marketing and local distributors. For the next two years prices will say almost unchanged as a result of the latest agreement but are expected to rise again in early 1990s.

7. Important Risks to the Forecast

(i) There is still a significant chance that the political unpopularity of the GST will cause the government to abandon or modify it. Therefore, a very wide band of uncertainty applies to the 1991 CPI forecast.

(ii) Our forecast numbers only show a slowdown in GDP growth in 1990. However, there is a significant risk that the continuation of high interest rates could lead to an actual recession (a drop in real GDP) in 1990.

Prediction Ranges (50% Probability)

	1990	1991
Ontario Real GDP Growth*	0.0 to 2.0	2.0 to 4.5
Ontario CPI*	4.8 to 5.8	4.0 to 8.0
Gov't Long-Term Bond Rate (%)**	8.5 to 10.0	8.0 to 10.0
Canadian Dollar in US Cents**	81 to 84	78 to 83

* Percent change
** Annual average value

If you have any questions concerning the Economic Outlook, please feel free to call me (6375) or Peter Spiro (6389).

Mitchell P. Rothman
Chief Economist
Economics and Forecasts Division

JCP/lth

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SHORT-TERM ECONOMIC OUTLOOK
ANNUAL REVIEW

September 1989

This Review replaces the May 1989
Short-Term Economic Outlook.
The forecasts contained in it have been approved by the
Vice-President, Corporate Planning.
They have the status of Corporate Predictions as defined under
Section 7 of the OOOH Manual.

Prepared by: J.C. Parker (Project Leader), E.P. Crawford, A.T. Zerek,
P.S. Spiro, M. Angastiniotis, W.H. Tharp and L.T. Hachey

Please direct any questions to
Mitchell P. Rothman (6375) or Peter S. Spiro (6389).
For extra copies, call 6394.

File No.: 706.01 (#245)

1.0 FORECAST TABLES

1.1 ONTARIO

	Actual	Forecast				
	1988	1989	1990	1991	1992	1993
Economic Growth Indicators: (% Change)						
Real Gross Domestic Product	4.9(r)	2.5	1.3	3.6	3.6	3.2
Population	1.7	1.5	1.4	1.3	1.3	1.2
Labour Force	2.5	1.7	1.4	1.8	2.0	1.9
Employment	3.7	1.5	1.4	1.8	2.4	2.4
Labour Productivity	1.2	1.0	-0.1	1.8	1.2	0.8
Unemployment Rate (%)	5.0	5.1	5.2	5.1	4.8	4.3
Housing Starts ('000 units)	99.9	85.7	72.8	71.5	74.1	75.2
Cost Indicators: (% Change)						
Consumer Price Index						
- Toronto	5.1	6.5	5.7	7.7	5.4	5.0
- Ontario Average*	4.7	5.8	5.3	7.5	5.1	4.8
Average Hourly Earnings:						
Manufacturing	5.4	5.0	5.0	5.4	5.5	6.0
Construction	3.7	5.5	4.5	5.0	5.3	6.0

* Composite Price Index published by Statistics Canada.
r Will be revised upwards.

1.2 CANADA

	Actual 1988	Forecast 1989	1990	1991	1992	1993
Economic Growth Indicators: (% Change)						
Real Gross Domestic Product	5.0	2.7	1.5	2.7	3.5	3.5
Population	1.1	1.2	1.0	1.0	0.9	0.8
Labour Force	2.0	1.8	1.9	1.8	1.7	1.6
Employment	3.2	1.8	1.4	1.6	2.3	2.5
Labour Productivity	1.7	0.8	0.1	1.1	1.1	0.9
Unemployment Rate (%)	7.8	7.9	8.7	8.4	7.8	6.9
Fed Gov't Deficit (As % of GDP)*	3.4	3.8	3.8	2.7	2.6	2.3
Cost Indicators: (% Change)						
Consumer Price Index - Total	4.1	4.8	4.5	6.9	5.0	4.6
Consumer Price Index - Food	2.0	3.6	4.6	3.6	5.0	4.9
Consumer Price Index - Fuel	0.6	-0.5	4.3	4.5	6.3	4.8
GDP Deflator	4.1	5.1	5.0	6.2	4.5	4.1
Industrial Product Price - (Economy Aggregrate)	4.3	4.0	4.2	4.0	4.0	4.6
Corporate Pre-Tax Profits	14.0	9.8	10.3	20.4	4.8	-0.6
Average Hourly Earnings - Mfg	4.9	4.8	5.0	5.4	5.5	5.5
Interest Rates: (%)						
Treasury Bill Rate	9.4	11.7	10.2	9.3	8.4	8.2
Prime Interest Rate	10.7	13.2	11.6	10.7	9.7	9.5
Government of Canada Bonds:						
5 years	9.8	9.9	8.8	9.4	9.3	9.5
20 years	10.2	9.9	9.0	9.6	9.5	9.5
Real Prime Rate	6.6	8.4	7.1	3.7	4.7	4.9
Canadian Dollar (in US Cents)	81.3	84.0	82.8	80.8	79.5	79.0

* Based on the National Income Accounts Definition.

1.3 UNITED STATES

	Actual	Forecast				
	1988	1989	1990	1991	1992	1993
Annual Percentage Change:						
Real Gross National Product	3.9	2.8	1.5	3.0	2.7	2.5
Consumer Price Index	4.1	5.3	4.6	3.8	4.5	4.5
Hourly Wages	3.8	4.6	5.0	4.6	5.0	5.2
US $ Billions (1983 $):						
Balance of Payments,						
Current Account	-114	-93	-90	-92	-84	-81
Trade Balance	-116	-85	-75	-70	-55	-45
Average Annual Rate:						
Prime Interest Rate	9.3	10.9	9.2	8.9	8.8	8.5
Government Bond Yields						
- 3 to 5 year maturity	8.3	8.5	7.2	7.7	8.0	8.0
- 10 to 20 year maturity	9.0	8.5	7.5	8.2	8.5	8.5

1.4 ENERGY

	Actual 1988	Forecast 1989	1990	1991	1992	1993
WORLD OIL PRICES ($ per Barrel)						
International Oil Price[1] FOB Cost US Imports						
Current US Dollars	13.25	17.00	18.20	19.30	20.60	21.90
Constant US 1989 Dollars	13.80	17.00	17.35	17.75	18.15	18.50
West Texas Intermediate (WTI) at Chicago						
Current US Dollars	16.60	19.50	19.95	21.15	22.50	23.95
Constant US 1989 Dollars	17.28	19.50	19.05	19.45	19.85	20.20
CANADIAN CRUDE OIL AND NATURAL GAS PRICES						
Crude Oil (Canadian $ per Barrel)						
Ontario Refiners' Acquisition Cost (Light Crude)						
Current Dollars	20.65	22.95	24.65	27.05	29.30	31.35
Constant 1989 Dollars	21.85	22.95	23.45	24.50	25.30	25.75
Natural Gas (Canadian $ per Million Btu's)						
Average Wholesale Price[2] at Toronto						
Current Dollar	3.35	2.92	3.06	3.32	3.65	3.97
Constant 1989 Dollars	3.54	2.92	2.91	3.00	3.15	3.27

1. FOB Cost of US Imports are used now as a proxy for the average international crude oil price.

2. The difference in estimated wholesale price of natural gas at Toronto from the last forecast results from the change in contractual arrangements between Western Gas Marketing and Local Distributing Companies and a more precise definition.

APPENDIX A

DATA

Table A.1 Historical and Forecast Data - Rates and Percentage Changes

Year	Real GDP (1)			Consumer Price Index (1)			Population (1)		Labour Force (1)		Employment (1)		Unemployment Rate (2)		Labour Productivity (1)	
	U.S.	Can.	Ont.	U.S.	Can.	Ont.(3)	Can.	Ont.	Can.	Ont.	Can.	Ont.	Can.	Ont.	Can.	Ont.
1964	5.34	6.67	7.29	1.28	1.82	N/A	1.89	2.28	2.75	3.26	3.64	3.85	4.4	3.2	2.92	3.31
1965	5.79	6.60	6.29	1.59	2.46	N/A	1.85	2.35	2.94	2.26	3.77	3.02	3.6	2.5	2.73	3.18
1966	5.78	6.79	6.95	3.02	3.73	N/A	1.85	2.52	3.93	6.16	4.19	6.10	3.3	2.6	2.50	0.81
1967	2.86	2.93	4.18	2.80	3.64	N/A	1.83	2.42	3.40	3.75	2.88	3.13	3.8	3.2	0.05	1.02
1968	4.15	5.35	6.57	4.30	4.02	N/A	1.61	1.91	2.60	3.07	1.90	2.64	4.5	3.6	3.39	3.82
1969	2.44	5.35	5.82	5.46	4.50	N/A	1.46	1.75	3.11	3.27	3.17	3.69	4.4	3.2	2.12	2.05
1970	-0.29	2.60	2.22	5.81	3.38	N/A	1.40	2.22	2.51	3.23	1.11	1.95	5.7	4.4	1.47	0.26
1971	2.84	5.76	5.86	4.31	2.80	N/A	1.28	1.99	2.82	3.58	2.30	2.50	6.2	5.4	3.38	3.28
1972	4.98	5.73	6.69	3.27	4.82	N/A	1.08	1.39	3.02	3.63	2.97	4.05	6.2	5.0	2.68	2.54
1973	5.20	7.71	6.02	6.14	7.61	N/A	1.13	1.35	4.21	3.59	4.98	4.35	5.6	4.3	2.60	1.59
1974	-0.54	4.40	2.14	11.06	10.89	N/A	1.44	1.73	3.95	4.36	4.17	4.23	5.3	4.4	0.22	-2.01
1975	-1.26	2.60	0.64	9.20	10.79	N/A	1.48	1.48	3.47	3.58	1.73	1.50	6.9	6.3	0.86	-0.85
1976	4.89	6.16	5.52	5.76	7.52	N/A	1.31	1.16	2.33	1.68	2.11	1.87	7.1	6.2	3.97	3.58
1977	4.67	3.61	1.92	6.47	8.01	N/A	1.19	1.07	2.90	2.67	1.82	1.78	8.1	7.0	1.76	0.14
1978	5.29	4.57	2.93	7.62	8.90	N/A	1.05	1.02	3.73	3.69	3.46	3.43	8.3	7.2	1.07	-0.48
1979	2.48	3.87	2.66	11.27	9.15	N/A	1.00	0.75	3.07	3.34	4.10	4.12	7.4	6.5	-0.22	-1.40
1980	-0.17	1.48	-0.38	13.54	10.17	10.26	1.23	0.78	3.07	1.85	3.02	1.50	7.4	6.8	-1.49	-1.86
1981	1.94	3.67	3.46	10.32	12.47	12.11	1.23	0.67	2.91	2.60	2.79	2.91	7.6	6.6	0.86	0.53
1982	-2.55	-3.22	-4.16	6.15	10.79	10.60	1.01	0.90	0.18	0.87	-3.51	-2.59	11.0	9.7	0.30	-1.61
1983	3.57	3.16	5.34	3.17	5.82	6.24	0.84	1.10	1.49	1.31	0.51	0.64	11.8	10.4	2.64	4.67
1984	6.78	6.31	9.10	4.31	4.34	4.94	0.77	1.21	1.72	2.06	2.41	3.57	11.2	9.0	3.80	5.34
1985	3.35	4.77	5.52	3.60	3.95	4.06	0.76	1.18	1.75	2.21	2.64	3.35	10.5	8.0	2.07	2.09
1986	2.85	3.10	6.35	1.95	4.20	4.44	0.75	1.21	1.71	2.19	2.76	3.36	9.5	6.9	0.32	2.90
1987	3.37	4.48	4.45	3.65	4.33	5.07	1.01	1.60	2.08	2.67	2.86	3.65	8.8	6.1	1.57	0.77
1988	3.87	5.01	4.90 r	4.13	4.04	4.69	1.15	1.72	2.03	2.53	3.23	3.70	7.8	5.0	1.73	1.15
1989	2.80	2.70	2.50	5.30	4.80	5.80	1.20	1.50	1.80	1.70	1.80	1.50	7.9	5.1	0.80	1.00
1990	1.50	1.50	1.30	4.60	4.50	5.30	1.00	1.40	1.90	1.40	1.40	1.40	8.7	5.2	0.10	-0.10
1991	3.00	2.70	3.60	3.80	6.90	7.50	1.00	1.30	1.80	1.80	1.60	1.80	8.4	5.1	1.10	1.80
1992	2.70	3.50	3.60	4.50	5.00	5.10	0.90	1.30	1.70	2.00	2.30	2.40	7.8	4.8	1.00	1.20
1993	2.50	3.50	3.20	4.50	4.60	4.80	0.80	1.20	1.60	1.90	2.50	2.40	6.9	4.3	0.90	0.80
1991-1995	2.60	3.30	3.30	4.40	5.20	5.30	0.90	1.20	1.70	1.80	1.90	2.06	7.5	4.6	1.50	1.20
1996-2000	2.20	2.60	2.50	5.00	5.00	5.00	0.70	0.84	1.00	1.23	1.30	1.00	6.6	4.3	1.30	1.50
2001-2005	2.20	2.50	2.30	5.00	5.00	5.00	0.60	0.67	0.70	0.93	0.90	0.95	5.7	4.0	1.60	1.40
2006-2010	2.30	2.20	2.30	5.00	5.00	5.00	0.50	0.57	0.50	0.73	0.70	0.73	5.0	4.0	1.50	1.50
2010-2025	2.00	1.90	1.90	5.00	5.00	5.00	0.40	0.43	0.10	0.09	0.10	0.09	5.0	4.0	1.80	1.90

1. Average Annual Percent Change. GNP for U.S.
2. Percent
3. Statistics Canada, Ontario Composite CPI. Replaces Ontario Hydro's 9-city composite.

r. Will be revised upward

Economic Outlook, September 1989

Table A.1 (Cont'd) Historical and Forecast Data - Rates and Percentage Changes

Year	Avg. Hourly Earnings Manufacturing (1) Can.	Ont.	Avg. Hourly Earnings Construction Ont.	Treasury Bill Rate Canada (2)	Prime Rate Canada (2)	Prime Rate U.S. (2)	Government Of Canada Intermed. Term (2)	Government Of Canada Long-Term (2)	Canadian Dollar (3)
1964	3.63	4.04	4.00	3.75	5.75	4.50	4.72	5.18	92.71
1965	4.79	5.34	9.62	3.98	5.77	4.53	4.90	5.21	92.77
1966	6.06	5.07	9.65	4.99	6.00	5.63	5.55	5.69	92.82
1967	7.01	6.58	8.80	4.64	5.92	5.63	5.64	5.94	92.70
1968	7.35	7.41	8.09	6.27	6.92	6.28	6.68	6.75	92.81
1969	8.15	8.43	11.90	7.19	7.96	7.95	7.66	7.58	92.87
1970	8.00	8.48	16.11	5.99	8.17	7.91	7.11	7.91	95.81
1971	8.93	8.79	12.04	3.56	6.48	5.72	5.55	6.95	99.03
1972	7.79	7.78	9.58	3.56	6.00	5.25	6.26	7.23	100.95
1973	8.94	8.89	9.59	5.47	7.65	8.02	6.98	7.56	99.99
1974	13.45	11.48	10.89	7.82	10.75	10.80	8.12	8.90	102.25
1975	15.68	14.42	11.58	7.39	9.42	7.86	7.71	9.03	98.33
1976	13.79	13.20	14.15	8.87	10.04	6.84	8.35	9.18	101.42
1977	10.82	10.25	12.12	7.33	8.50	6.82	7.90	8.70	94.09
1978	7.15	6.73	5.53	8.68	9.69	9.06	9.00	9.27	87.71
1979	8.78	8.26	6.64	11.69	12.90	12.67	10.42	10.21	85.37
1980	10.11	9.29	9.61	12.79	14.25	15.27	12.37	12.48	85.53
1981	12.03	11.68	10.96	17.72	19.29	18.87	15.68	15.22	83.41
1982	11.72	11.36	8.35	13.63	15.81	14.86	14.00	14.26	81.07
1983	7.01	7.24	6.55	9.31	11.17	10.79	10.61	11.79	81.14
1984	5.89	6.26	1.48	11.06	12.06	12.04	11.91	12.75	77.25
1985	3.86	3.96	3.31	9.43	10.58	9.93	10.39	11.04	73.24
1986	3.14	4.28	3.49	8.97	10.52	8.33	9.21	9.52	71.97
1987	3.49	3.66	6.89	8.15	9.52	8.20	9.42	9.95	75.42
1988	4.97	5.41	3.70	9.48	10.83	9.32	9.77	10.22	81.28
1989	4.80	5.00	5.50	11.70	13.20	10.90	10.00	9.90	84.00
1990	5.00	5.00	4.50	10.20	11.60	9.20	8.80	9.00	82.80
1991	5.40	5.40	5.00	9.30	10.70	8.90	9.40	9.60	80.80
1992	5.50	5.50	5.30	8.40	9.70	8.80	9.30	9.50	79.40
1993	5.50	6.00	6.00	8.20	9.50	8.50	9.50	9.50	79.00
1991-1995	5.90	6.00	5.90	8.70	9.70	8.60	9.30	9.50	79.50
1996-2000	6.00	6.00	6.00	7.90	9.00	8.50	9.00	9.50	80.00
2001-2005	6.50	6.50	6.50	7.40	8.50	8.00	8.50	9.20	80.00
2006-2010	7.00	7.00	7.00	7.20	8.30	7.80	8.50	9.00	79.00
2010-2025	7.00	7.00	7.00	7.00	8.00	7.50	8.00	8.50	78.00

1. Average Annual Percent Change
2. Percent
3. U.S. Cents

Economic Outlook, September 1989

Table A.2 Historical and Forecast Data - Levels and Indexes

Year	Real GDP U.S.(1)	Real GDP Can.(2)	Real GDP Ont.(2)	Consumer Price Index U.S.(3)	Consumer Price Index Can.(4)	Consumer Price Index Ont.(4,8)	Population (5) Can.	Population (5) Ont.	Labour Force (5) Can.	Labour Force (5) Ont.	Employment (5) Can.	Employment (5) Ont.	Labour Productivity (6) Can.	Labour Productivity (6) Ont.	Avg. Hourly Earnings Mfg (7) Can.	Avg. Hourly Earnings Mfg (7) Ont.	Avg. Hourly Earnings Const (7) Ont.
1964	1,973	164,504	66,987	31.0	33.2	N/A	19,277	6,627	7,003	2,567	6,699	2,483	24,556	26,978	1.92	2.06	2.08
1965	2,088	175,359	71,203	31.5	34.0	N/A	19,634	6,783	7,209	2,625	6,951	2,558	25,227	27,835	2.01	2.17	2.28
1966	2,208	187,263	76,155	32.5	35.2	N/A	19,998	6,954	7,492	2,787	7,242	2,714	25,857	28,060	2.14	2.28	2.50
1967	2,271	192,752	79,342	33.4	36.5	N/A	20,364	7,122	7,747	2,891	7,451	2,799	25,871	28,347	2.29	2.43	2.72
1968	2,366	203,072	84,551	34.8	38.0	N/A	20,692	7,258	7,948	2,980	7,592	2,873	26,747	29,430	2.45	2.61	2.94
1969	2,423	213,946	89,471	36.7	39.7	N/A	20,994	7,385	8,195	3,077	7,833	2,979	27,313	30,034	2.65	2.83	3.29
1970	2,416	219,498	91,454	38.8	41.0	N/A	21,288	7,549	8,401	3,177	7,920	3,037	27,713	30,113	2.87	3.07	3.82
1971	2,485	232,137	96,813	40.5	42.2	N/A	21,559	7,699	8,637	3,290	8,103	3,113	28,649	31,100	3.12	3.34	4.28
1972	2,609	245,441	103,289	41.8	44.2	N/A	21,793	7,806	8,898	3,410	8,344	3,239	29,417	31,889	3.37	3.60	4.69
1973	2,744	264,369	109,503	44.4	47.6	N/A	22,040	7,911	9,273	3,532	8,759	3,380	30,182	32,397	3.67	3.92	5.14
1974	2,729	276,006	111,843	49.3	52.8	N/A	22,357	8,048	9,639	3,686	9,125	3,523	30,249	31,747	4.16	4.37	5.70
1975	2,695	283,187	112,556	53.8	58.5	N/A	22,688	8,167	9,973	3,818	9,283	3,576	30,508	31,475	4.81	5.00	6.36
1976	2,827	300,638	118,774	56.9	62.9	N/A	22,985	8,262	10,206	3,882	9,479	3,643	31,718	32,603	5.47	5.66	7.26
1977	2,959	311,504	121,057	60.6	67.9	N/A	23,260	8,350	10,502	3,986	9,651	3,708	32,276	32,648	6.07	6.24	8.14
1978	3,115	325,751	124,603	65.2	73.9	N/A	23,503	8,435	10,894	4,133	9,986	3,835	32,622	32,491	6.50	6.66	8.59
1979	3,192	338,362	127,914	72.6	80.7	80.9	23,738	8,498	11,228	4,271	10,395	3,993	32,551	32,035	7.07	7.21	9.16
1980	3,187	343,384	127,425	82.4	88.9	89.2	24,030	8,564	11,572	4,350	10,709	4,053	32,066	31,440	7.79	7.88	10.04
1981	3,249	355,994	131,831	90.9	100.0	100.0	24,325	8,621	11,909	4,463	11,007	4,171	32,342	31,607	8.72	8.80	11.14
1982	3,166	344,543	126,352	96.5	110.8	110.6	24,571	8,699	11,931	4,502	10,621	4,063	32,440	31,098	9.75	9.80	12.07
1983	3,279	355,445	133,096	99.6	117.2	117.5	24,778	8,795	12,108	4,561	10,675	4,089	33,297	32,550	10.43	10.51	12.86
1984	3,501	377,865	145,203	103.9	122.3	123.3	24,970	8,901	12,316	4,655	10,933	4,235	34,563	34,286	11.04	11.17	13.05
1985	3,619	395,878	153,215	107.6	127.2	128.3	25,158	9,006	12,532	4,758	11,221	4,377	35,279	35,005	11.47	11.61	13.48
1986	3,722	408,143	162,947	109.7	132.5	134.0	25,348	9,115	12,746	4,862	11,532	4,524	35,394	36,018	11.83	12.11	13.95
1987	3,847	426,411	170,198	113.7	138.2	140.8	25,604	9,261	13,011	4,992	11,861	4,689	35,950	36,297	12.24	12.55	14.92
1988	3,996	447,779	178,538	118.4	143.8	147.4	25,898	9,420	13,275	5,119	12,244	4,863	36,572	36,716	12.85	13.23	15.47
1989	4,108	459,869	183,001	124.7	150.7	155.9	26,209	9,561	13,514	5,206	12,464	4,936	36,895	37,077	13.47	13.89	16.32
1990	4,170	466,767	185,380	130.4	157.5	164.2	26,471	9,695	13,770	5,278	12,639	5,005	36,931	37,041	14.14	14.59	17.05
1991	4,295	479,370	192,054	135.4	168.4	176.5	26,736	9,821	14,018	5,373	12,841	5,095	37,331	37,696	14.91	15.37	17.90
1992	4,411	496,148	198,968	141.5	176.8	185.5	26,976	9,949	14,256	5,481	13,136	5,217	37,769	38,138	15.72	16.22	18.85
1993	4,521	513,513	205,335	147.8	184.9	194.4	27,192	10,068	14,485	5,585	13,465	5,342	38,137	38,436	16.59	17.19	19.98
1995	4,740	549,037	218,054	161.7	202.9	212.6	27,684	10,291	14,981	5,771	13,886	5,542	39,539	39,346	18.84	19.52	22.71
2000	5,285	624,221	246,709	206.4	259.0	271.3	28,666	10,731	15,745	6,135	14,812	5,825	42,142	42,356	25.21	26.12	30.39
2005	5,893	706,249	276,415	263.5	330.6	346.3	29,537	11,095	16,304	6,425	15,491	6,107	45,591	45,265	34.53	35.79	41.64
2010	6,603	787,431	309,700	336.2	421.9	442.0	30,282	11,415	16,716	6,663	16,041	6,333	49,089	48,904	48.44	50.20	58.40
2025	8,886	1,044,300	410,727	699.0	877.1	918.8	32,151	12,174	16,968	6,754	16,283	6,419	64,134	63,988	133.64	138.49	161.14

1. GNP. Billions of 1982 Dollars
2. Millions of 1981 Dollars
3. 1982 to 1984 = 100
4. 1981 = 100
5. Thousands
6. 1981 Dollars
7. Dollars
8. Statistics Canada, Ontario Composite CPI. Replaces Ontario Hydro's 9-city composite.

Economic Outlook, September 1989

APPENDIX B

FORECAST COMPARISONS

TABLE B.1

REAL GROSS DOMESTIC PRODUCT
Ontario
(% Change)

	1989	1990
Conference Board April 1989	3.0	2.6
Informetrica May 1989	2.1	2.6
Ontario Hydro August 1989	2.5	1.3
Ontario Ministry of Treasury and Economics May 1988	2.8	N/A
Royal Bank August 1989	2.6	1.4
CIBC June 1989	2.3	1.3
Average (w/o Hydro)	2.6	2.0

TABLE B.2

REAL GROSS DOMESTIC PRODUCT
Canada
(% change)

	1989	1990
Burns Fry August 1989	2.7	1.1
Conference Board August 1989	3.2	2.2
Data Resources (DRI) August 1989	2.9	1.8
Deacon Morgan April 1989	2.6	2.5
Informetrica August 1989	2.5	1.0
Merrill Lynch August 1989	3.4	1.7
Nesbitt Thomson August 1989	2.8	0.0
Ontario Hydro August 1989	2.7	1.5
Richardson Greenshields August 1989	N/A	N/A
Royal Bank August 1989	2.6	1.5
Scotia McLeod August 1989	3.4	1.7
WEFA Group August 1989	2.9	1.5
Wood Gundy August 1989	2.4	1.0
Average (w/o Hydro)	2.9	1.4

N/A - not available at time of publication

TABLE B.3

CONSUMER PRICE INDEX
Canada
(% change)

	1989	1990
Burns Fry August 1989	5.1	5.2
Conference Board August 1989	5.2	4.9
Data Resources (DRI) August 1989	5.0	4.8
Deacon Morgan April 1989	4.2	3.9
Informetrica August 1989	5.0	5.5
Merrill Lynch August 1989	5.3	5.1
Nesbitt Thomson August 1989	5.2	5.0
Ontario Hydro August 1989	4.8	4.5
Richardson Greenshields August 1989	N/A	N/A
Royal Bank August 1989	5.2	4.7
Scotia McLeod August 1989	5.3	5.1
WEFA Group August 1989	5.1	4.8
Wood Gundy August 1989	5.2	4.6
Average (w/o Hydro)	5.1	4.9

N/A - not available at time of publication

TABLE B.4

AVERAGE WAGE RATES
Canada
(% change)

	1989	1990
Burns Fry August 1989	5.5	4.8
Conference Board August 1989	5.2	5.1
Data Resources (DRI) August 1989	5.3	5.6
Deacon Morgan April 1989	4.8	4.5
Informetrica August 1989	5.8	7.3
Merrill Lynch August 1989	N/A	N/A
Nesbitt Thomson August 1989	N/A	N/A
Ontario Hydro August 1989	4.8	5.0
Richardson Greenshields August 1989	N/A	N/A
Royal Bank* August 1989	5.8	5.0
Scotia McLeod August 1989	N/A	N/A
WEFA Group August 1989	6.4	6.7
Wood Gundy August 1989	N/A	N/A
Average (w/o Hydro)	5.5	5.6

N/A - not available at time of publication

TABLE B.5

PRIME INTEREST RATE
Canada
(%)

	1989	1990
Burns Fry August 1989	12.9	11.2
Conference Board August 1989	13.2	12.8
Data Resources (DRI) August 1989	12.9	11.3
Deacon Morgan April 1989	12.8	10.8
Informetrica August 1989	12.7	11.1
Merrill Lynch August 1989	12.8	11.8
Nesbitt Thomson August 1989	13.0	9.0
Ontario Hydro September 1989	13.3	11.6
Richardson Greenshields August 1989	N/A	N/A
Royal Bank August 1989	13.0	10.6
Scotia McLeod August 1989	13.3	11.5
WEFA Group August 1989	13.1	12.1
Wood Gundy* August 1989	11.8	11.5
Average (w/o Hydro)	12.9	11.2

N/A - not available at time of publication
* End of year value

TABLE B.6

LONG-TERM GOVERNMENT BOND YIELD
Canada
(%)

	1989	1990
Burns Fry August 1989	9.5	8.5
Conference Board* August 1989	11.1	11.4
Data Resources (DRI) August 1989	9.8	9.0
Deacon Morgan April 1989	9.8	9.0
Informetrica August 1989	10.8	10.5
Merrill Lynch* August 1989	8.8	9.3
Nesbitt Thomson August 1989	9.3	8.8
Ontario Hydro September 1989	9.9	9.0
Richardson Greenshields August 1989	N/A	N/A
Royal Bank August 1989	9.9	9.5
Scotia McLeod August 1989	9.3	9.0
WEFA Group August 1989	9.9	9.8
Wood Gundy* August 1989	8.5	8.5
Average (w/o Hydro)	9.7	9.4

* End of year value
N/A - not available at time of publication

TABLE B.7

EXCHANGE RATE - US CENTS PER CANADIAN DOLLAR

	1989	1990
Burns Fry August 1989	84.1	82.5
Conference Board August 1989	83.1	81.2
Data Resources (DRI) August 1989	83.0	80.7
Deacon Morgan April 1989	83.0	80.0
Informetrica August 1989	83.3	82.0
Merrill Lynch August 1989	83.5	82.0
Nesbitt Thomson August 1989	83.5	79.0
Ontario Hydro September 1989	84.0	82.8
Richardson Greenshields August 1989	N/A	N/A
Royal Bank August 1989	83.3	79.9
Scotia McLeod August 1989	83.8	82.0
WEFA Group August 1989	83.7	82.5
Wood Gundy* August 1989	80.5	81.0
Average (w/o Hydro)	83.2	81.2

* End of year value

TABLE B.8

REAL GROSS NATIONAL PRODUCT
USA
(% change)

	1989	1990
Ontario Hydro August 1989	2.8	1.5
WEFA Group July 1989	2.9	2.2
Data Resources (DRI) July 1989	2.6	1.2
Blue Chip Consensus** June 1989	2.7	1.5
Chrysler Corp*	2.7	0.8
Conference Board*	2.5	0.7
Dean Witter*	2.8	1.4
Merrill Lynch*	2.4	1.3
Eggert Economic Enterprises*	2.6	1.1
UCLA Business Forecast*	1.9	0.2

* Latest forecast given in the June 1989 issue of "Blue Chip Economic Indicators"

** The average forecast of about 50 forecasters

TABLE B.9

CONSUMER PRICE INDEX
USA
(% change)

	1989	1990
Ontario Hydro August 1989	5.3	4.6
WEFA Group July 1989	5.1	4.6
Data Resources (DRI) July 1989	5.0	4.4
Blue Chip Consensus** June 1989	5.1	4.8
Chrysler Corp*	5.2	4.8
Conference Board*	5.2	5.4
Dean Witter*	5.1	4.6
Merrill Lynch*	5.4	5.1
Eggert Economic Enterprises*	5.1	4.1
UCLA Business Forecast*	5.1	4.3

* Latest forecast given in the June 1989 issue of "Blue Chip Economic Indicators"

** The average forecast of about 50 forecasters

TABLE B.10

ENERGY PRICES

	1988	1989	1990	1991	1992
International Crude Oil US$/Barrel					
Data Resources (DRI)[1]	14.94	16.14	17.58	19.22	20.68
Consumers Gas[2]	16.60	16.30	16.60	18.20	19.30
Enerdata Ltd[3]	14.17	15.88	18.26	22.00	N/A
Informetrica[4]	14.50	15.00	15.00	15.80	16.90
Ontario Hydro[5]	13.60	15.80	17.50	18.50	19.70
Domestic Crude Oil Cdn$/Barrel					
Data Resources (DRI)	20.17	21.40	23.70	26.10	27.25
Consumers Gas	19.80	19.30	19.90	20.80	22.40
Enerdata Ltd	19.38	21.74	24.31	28.92	N/A
Informetrica	20.70	20.90	21.00	22.10	23.30
Ontario Hydro	19.20	21.10	23.60	25.80	27.20
Domestic Natural Gas Residential Sector Cdn$/MMBtu					
Data Resources (DRI)	6.00	6.22	6.44	6.76	7.08
Ontario Hydro[6]	5.95	6.00	6.25	6.75	7.22
Enerdata Ltd	5.90	5.95	6.20	6.70	N/A

N/A - not available at time of publication

Note: The foregoing comparison is in nominal dollars and reflects differences in both the energy and macroeconomic (eg, inflation and exchange rates) assumptions.

Source:
1. "Canadian Energy", Winter 1988-89
2. Consumers' Gas, January 1989
3. "Canadian Energy Trends", September 1988
4. "Reference Forecast", Post-II/1988, January 1989
5. "Economic Outlook", May 1989
6. "Retail Energy Price Trends", November 1988

Note: Recipients who have an Economic Outlook binder should place this report under the tab titled "Economic Outlook: Long Term". Those users who are on the Cost Escalators and Alternative Scenarios distribution lists will receive those reports in November.

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MEMORANDUM

ALL USERS

September 1989

File No.: 706.01 (#281)

Long-Term Economic Outlook - Annual Review

1. Changes from the Previous Outlook

This forecast updates the Long-Term Economic Outlook issued in September of 1988. There are relatively few changes in the forecast, with the most significant being an increase in the inflation rate in the 1991-95 as a result of the expected introduction of the new Goods and Services Tax. The changes in the key indicators are summarized in the following table:

Changes from the September 1988 Outlook

	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
Ontario Real GDP Growth*	+0.3	+0.2	-0.3	-0.1	+0.1	+0.2
CPI Inflation Rate*	+0.0	+0.8	+0.1	-0.5	0.0	0.0
Government Bond Rate	-0.1	+0.3	0.0	-0.3	0.0	0.0
Canadian Dollar**	+1.7	+0.5	0.0	+2.0	+2.0	+3.0
Real Natural Gas Price*	-5.5	+3.0	+1.5	-0.6	+1.4	+0.9

*Difference in growth rate (percentage points) from previous forecast.

** Change in US cents relative to previous forecast.

"Real" values are computed by subtracting the inflation rate. Some of the changes shown for the 1986-1990 period were already incorporated in the February or May 1989 Short-Term Outlooks.

2. Uncertainty in Long-Term Forecasting

Any forecast of the distant future depends on uncertain assumptions, especially about domestic and international political conditions. This report summarizes our Most Likely forecast scenario. It will be supplemented by three alternative scenarios in the report entitled "Alternative Scenarios for Corporate Planning," which discusses the main risks to the forecast.

3. Ontario Economic Growth

	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
Employment growth*	1.5	2.7	2.1	1.0	0.9	0.7	0.1
Real output per worker*	2.2	1.3	1.2	1.5	1.4	1.5	1.9
Total output growth (GDP)*	3.8	3.9	3.3	2.5	2.3	2.3	1.9

* Average annual percent change.

The dominant factor behind the forecast of a slowing trend of economic growth is the forecast of slow population (and labour force) growth. The birth rate has declined dramatically in the past twenty years, virtually guaranteeing that the rate of labour force growth over the next two decades will be less than half of what it was during the past two decades. The government is likely to permit increased immigration as labour shortages develop in the 1990s, but this is not expected to offset the decline in births. It now appears that the birth rate has stopped falling, but it is likely to stay so low that, in the absence of immigration, Canada's population would eventually decline.

As a result of slow labour force growth, aggregate output in the economy is forecast to grow slowly compared to historical rates, but growth in productivity (real output per worker) should improve, allowing a substantial growth in per capita real incomes. In the ten year period ending in 1982, productivity growth in Ontario was approximately zero as a result of economic instability, rapid entry of inexperienced workers into the labour force, and energy price shocks. The latter were particularly harmful to Ontario, because they diverted investment away from Ontario to western Canada, and reduced demand for automobile production. We are assuming that Ontario industry will successfully meet the competitive challenges posed by the Free Trade Agreement, and that productivity growth will be enhanced as a result of it. Productivity growth in the five year period from 1985 to 1989 has averaged only 1.1 percent per year (in spite of strong demand conditions), which is slower than the average of 1.4 percent we expect over the next two decades. The hoped for increase in productivity growth would be the result both of greater efficiency prompted by the Free Trade Agreement, and greater reliance on capital investment to utilize advancements in technology and further automate production processes.

4. Sectoral Distribution of Output

	1970	1980	1985	1990	1995	2000	2005	2010
Primary Sector*	6.8	4.8	4.1	3.7	3.4	3.2	3.0	2.9
Manufacturing Sector*	27.3	26.1	27.4	26.7	27.0	27.1	27.0	27.0
Service Sector*	49.9	54.0	53.7	55.5	55.9	56.4	57.2	57.8

*Percentage share of provincial GDP (eg, the importance of these sectors as direct sources of income for Ontarians)

The composition of GDP growth is important for predicting the growth in demand for electricity, because some industries and sectors are considerably more electricity-intensive than others (meaning that electricity represents a relatively larger share of the total cost of that industry's production). The main trend in industrial structure over the last few decades has been a declining share of primary industry (mining, agriculture, logging) in Ontario's GDP, and a slight increase in the share of manufacturing and services. As typically measured, services (excluding government administration) now account for about 50 percent of Ontario's GDP. However, much of this is not personal services but rather services to other businesses. It has been estimated that when services whose existence is dependent on manufacturing are included, manufacturing accounts for roughly 50 percent of GDP, and it is clear that continued growth in standards of living depends on the maintenance of a strong manufacturing sector in Ontario. The gradual depletion of natural resources (and competition from mines in low wage countries) implies a continued decline in the relative importance of the primary sector in Ontario's future. It is felt that Ontario's proximity to markets, educated labour force, and well-developed infrastructure (not least of which is a reliable supply of electricity) should enable this province to meet the challenges created by the Free Trade Agreement. Some individual companies will inevitably suffer as a result of the restructuring needed to meet new competition, but Ontario's largest industries are expected to be quite cost-competitive, and the economy will tend to specialize more in the industries in which it is already strong.

The introduction of the federal government's Goods and Services Tax in 1991 would lead to some structural shifts in the economy. This tax would make the price of services rise more than the prices of manufactured goods, and so would be expected to lead to some loss of market share for services. However, the details of the tax were released too late for us to fully analyze this issue, and the projections of sectoral share shown here do not reflect the impacts of the GST.

5. Inflation - Consumer Price Index*

1981 - 1985	7.6%	2001 - 2005	5.0%
1986 - 1990	5.1%	2006 - 2010	5.0%
1991 - 1995	5.3%	2011 - 2025	5.0%
1996 - 2000	5.0%		

* Average annual percent change for Ontario

Inflation is a particularly uncertain variable, because its long-run value is the result of government policies, rather than fundamental economic forces. The long-term forecast of inflation is a political forecast, which relies on our conjectures of how the economic factors prevailing in the future will influence government policy. Following an inflation rate which peaked at 12.5 percent in 1981, tight monetary policy brought about the deepest post-war recession in 1982, leading to an average inflation rate just under 4 percent in 1985. The rhetoric of central bankers has called for the inflation rate to decline all the way to zero, but in fact their actions have been such as to allow it to creep upward into the 5 percent range, and there is not yet any firm assurance that it will be stopped there. In Canada, there is also the prospect of sales tax reform, which would impose a new 9 percent tax on services, and initially add about 3 percentage points to the CPI in 1991.

Inflation becomes entrenched because of the habitual increases in prices and wages by hundreds of thousands of individual decision makers, who are themselves responding to the inflation they have just experienced. It is likely that reducing inflation further could only be achieved by a severe recession, and there is no political support for central bankers to undertake such a measure. At the same time, it is reasonable to assume that governments and the electorate have learned how harmful high and rising inflation can be, and so will try to limit it to what is considered a moderate range (not above 6 percent). For that reason 5 percent has been chosen as a likely mid-range of the actual outcomes.

6. Interest Rates (%)

	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
20-year Bond Rate	13.2	9.7	9.5	9.5	9.2	9.0	8.5
5-year Bond Rate	12.5	9.3	9.3	9.0	8.5	8.5	8.0
Real Treasury Bill Rate	5.0	5.3	3.5	2.9	2.4	2.2	2.0

Real rates of interest have been well above historical averages all through the 1980s because of a combination of tighter central bank monetary policies (to control inflation) and high levels of government borrowing, and they are expected to decline only gradually. Government deficits in the United States have declined considerably. Unfortunately, the buildup of debt resulting from past deficits has resulted in a large increase in the

economy's debt to equity ratio, which will take many years to reduce even if deficits continue to decline. Investors have to be offered a higher real return to make them willing to hold a larger share of their portfolios in the form of government debt. While real interest rates will remain relatively high for the next several years, they will be on a declining trend as these debt pressures diminish. A gradually increasing personal savings rate is also expected to increase the supply of capital and contribute to lower real interest rates. It has been found that individuals tend to save a larger proportion of their income after the age of 45, and this factor should contribute to higher savings as the Baby Boom generation matures, but it is not expected to be a significant factor until after the year 2000.

Canadian interest rates are primarily determined by events in the United States since our capital markets are so closely linked, but Canadian factors do have the ability to influence the differential between Canadian and US rates. In recent years, there has been an unusually large differential between Canadian and US rates. This has been partly due to tighter monetary policy on the part of Bank of Canada (which, in turn, has partly been in response to the potentially inflationary effects of large government deficits in Canada). In the longer term, the Canadian prime interest rate is expected to be about 0.5 percent above its US counterpart.

7. Canadian Dollar Exchange Rate*

1981 - 1985	79.3	2001 - 2005	80.0
1986 - 1990	79.1	2006 - 2010	79.0
1991 - 1995	79.5	2011 - 2025	78.0
1996 - 2000	80.0		

* Average value in US cents.

The main determinant of the long-run exchange rate trend is the differential between Canadian and US inflation rates. It is expected that the Canada-US Free Trade Agreement will increase the alignment between Canadian and US monetary policies, and expose the Canadian economy to greater competitive forces, eliminating the historical tendency for Canadian inflation to exceed US inflation. However, the exchange rate currently is above its sustainable value (estimated to be about 80 US cents) as a result of capital inflows resulting from interest rates which are considerably higher in Canada than in the United States. In the very long run, demographic factors are also likely to contribute to a slight downward trend in the value of the Canadian dollar. An aging population is likely to save more (and a growing proportion of this would be invested abroad as slow labour force growth reduces the opportunities for profitable investment in Canada) and also accelerate the growth of the travel deficit.

8. Energy Prices*

	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
Canadian Crude Oil	-8.8	2.6	2.9	0.9	1.2	0.6
Natural Gas	-10.0	4.5	6.3	1.4	1.7	0.9

* Annual average percent change in price (with CPI inflation removed).

The oil market has remained very volatile especially since the 1986 oil price collapse. This trend is expected to continue with crude oil prices reacting both to the fundamental and speculative factors of the market. OPEC's ability to control its output at times of a weakening market remains the most important determinant of market stability in the near term. For the next few years world oil prices are projected to average in real terms around US$18 per barrel (in 1989$). Upward pressure on world oil prices is expected to resume in the 1990s. This pressure is due mainly to stronger demand for oil, limited growth potential in non-OPEC production, increased OPEC control of the market, and higher incremental cost of non-OPEC oil. Deregulation of the domestic oil market is expected to continue. Canadian crude oil prices are projected to move with the trend in international oil prices subject to exchange rate and transportation cost adjustments. In recent years natural gas prices have been under strong downward pressure as a result of a North American natural gas surplus, the deregulation process and depressed oil prices. A downward revision of our forecast for the wholesale price of natural gas at Toronto in the near term results from the change in contractual arrangements between Western Gas Marketing and Local Distributing Companies and a more precise definition. Our long-term price projections, have remained relatively unchanged -- the combination of a tighter US market, increasing cost of marginal supplies and a preference for that fuel for environmental reasons is expected to drive up North American gas prices.

If you have any questions concerning the Economic Outlook, please feel free to call me (6375) or Peter Spiro (6389). Readers who would like more information on the reasoning behind the forecasts may obtain technical background papers on the Ontario demographic and sectoral forecasts by calling Lauren Hachey (6394).

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PSS/lth

LONG-TERM ECONOMIC OUTLOOK
ANNUAL REVIEW

September 1989

This Review replaces the
September 1988 Long-Term Economic Outlook
The forecasts contained in it have been approved by the
Vice-President, Corporate Planning.
They have the status of Corporate Predictions as defined under
Section 7 of the OOOH Manual.

Prepared by: W.H. Tharp (Project Leader), J.C. Parker, E.P. Crawford,
A.T. Zerek, P.S. Spiro, M. Angastiniotis and L.T. Hachey

Please direct any questions to
Mitchell P. Rothman (6375) or Peter S. Spiro (6389).
For extra copies, call 6394.

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1.0 FORECAST TABLES

1.1 ONTARIO

	Actual		Forecast					
	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
Annual Average Percentage Change:								
Real Gross Domestic Product	2.5	3.9	3.8	3.3	2.5	2.3	2.3	1.9
Consumer Price Index (Ont)	N/A	7.6	5.1	5.3	5.0	5.0	5.0	5.0
Average Hourly Earnings:								
Manufacturing	9.5	8.1	4.7	6.0	6.0	6.5	7.0	7.0
Construction	9.6	6.1	4.7	6.0	6.0	6.5	7.0	7.0
Population	1.0	1.0	1.5	1.2	0.8	0.7	0.6	0.4
Labour Force	2.7	1.8	2.1	1.8	1.2	0.9	0.7	0.1
Employment	2.7	1.5	2.7	2.1	1.0	0.9	0.7	0.1
Labour Productivity	0.0	2.2	1.3	1.2	1.5	1.4	1.5	1.9
Annual Average Rates:								
Unemployment Rate	6.8	8.8	5.7	4.6	4.3	4.0	4.0	4.0

1.2 CANADA

	Actual		Forecast					
	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
Economic Growth Indicators: (Annual Avg Percentage Change)								
Real Gross Domestic Product	3.9	2.9	3.3	3.3	2.6	2.5	2.2	1.9
Population	1.2	1.9	1.0	0.9	0.7	0.6	0.5	0.4
Labour Force	3.0	1.6	2.1	1.7	1.0	0.7	0.5	0.1
Employment	2.9	1.0	2.6	1.8	1.3	0.9	0.7	0.1
Labour Productivity	1.0	1.9	0.7	1.5	1.3	1.6	1.5	1.8
Unemployment Rate (%)	7.7	10.4	8.5	7.5	6.6	5.7	5.0	5.0
Cost Indicators: (Annual Avg Percentage Change)								
GDP Deflator	8.3	6.1	4.1	4.8	5.0	5.0	5.0	5.0
Consumer Price Index	8.8	7.5	4.4	5.2	5.0	5.0	5.0	5.0
Industry Selling Price (Mfg)	10.0	5.4	3.3	4.6	5.5	5.5	5.0	5.0
Average Hourly Earnings (Mfg)	10.1	8.1	4.3	5.9	6.0	6.5	7.0	7.0
Real Average Hourly Earnings	1.3	0.6	-0.1	0.7	1.0	1.5	2.0	2.0
Interest Rates (Annual Avg Rate):								
Real Treasury Bill Rate*	1.3	5.0	5.3	3.5	2.9	2.4	2.2	2.0
Treasury Bill Rate	10.1	12.5	9.7	8.7	7.9	7.4	7.2	7.0
Bank Prime	11.1	13.8	11.1	9.7	9.0	8.5	8.3	8.0
Government of Canada Bonds:								
5 years	9.6	12.5	9.4	9.3	9.0	8.5	8.5	8.0
20 years	10.0	13.2	9.7	9.5	9.5	9.2	9.0	8.5
Federal Deficit (% of GNP)	3.3	5.4	3.9	3.0	2.5	2.0	1.0	1.0
Canadian Dollar in US Cents	90.8	79.3	79.1	79.5	80.0	80.0	79.0	78.0
Net Capital Inflows (% of GDP)	2.6	1.4	2.4	2.5	2.5	1.5	1.0	0.0

* The nominal Treasury Bill Rate minus the rate of CPI increase.

1.3 UNITED STATES*

	Actual		Forecast					
	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
Annual Average								
Percentage Change:								
Real Gross National Product	3.4	2.6	2.9	2.6	2.2	2.2	2.3	2.0
Consumer Prices	8.9	5.5	3.9	4.6	5.0	5.0	5.0	5.0
Hourly Wages	8.6	5.6	3.8	5.2	6.0	6.5	6.5	6.5
Average Annual Rate:								
Federal Deficit (% of GNP)	1.9	4.2	3.3	1.8	1.3	1.0	1.0	1.0
Prime Interest Rate	10.1	13.3	9.2	8.6	8.5	8.0	7.8	7.5
Difference, Canadian-US Prime Rate	0.9	0.5	1.9	1.1	0.5	0.5	0.5	0.5
Government Bond Yields								
3 to 5 year maturity	8.6	11.5	7.7	8.0	8.0	7.7	7.7	7.3
10 to 20 year maturity	8.9	11.8	8.4	8.5	8.5	8.2	8.2	7.7
Canadian-US Long-Term Yield	1.1	1.4	1.3	1.0	1.0	1.0	0.8	0.8

* These forecasts are mainly derived from Data Resources Inc.

1.4 ONTARIO INDUSTRIAL STRUCTURE

	Actual				Forecast				
	1970	1975	1980	1985	1990	1995	2000	2005	2010
Industry's Share of Total Provincial Gross Domestic Product (%)									
PRIMARY	6.8	5.1	4.8	4.1	3.7	3.4	3.2	3.0	2.9
Agriculture	2.7	2.6	2.3	2.2	1.8	1.7	1.6	1.5	1.4
Logging and Forestry	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3
Mining	3.6	2.2	2.1	1.5	1.5	1.4	1.3	1.2	1.1
MANUFACTURING	27.3	26.6	26.1	27.4	26.7	27.0	27.1	27.0	27.0
Food and Beverage	3.3	2.9	3.0	2.7	2.4	2.3	2.2	2.1	2.0
Tobacco	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Rubber and Plastics	0.8	0.8	1.0	1.1	1.1	1.2	1.2	1.3	1.3
Leather, Textiles and Clothing	1.3	1.2	1.4	1.3	1.2	1.1	1.0	1.0	0.9
Wood Products	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Furniture and Fixtures	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Pulp, Paper and Allied Products	1.9	1.4	1.6	1.5	1.4	1.4	1.4	1.4	1.4
Printing and Publishing	1.3	1.3	1.5	1.4	1.4	1.3	1.3	1.4	1.4
Primary Metal Products	3.7	3.0	2.4	2.2	1.9	1.8	1.8	1.8	1.7
Fabricated Metal Products	2.9	2.6	2.5	2.1	2.2	2.2	2.2	2.2	2.2
Machinery	1.7	1.7	1.9	1.3	1.4	1.4	1.3	1.3	1.2
Transportation Equipment	3.2	4.5	3.2	5.3	4.7	5.1	5.3	5.4	5.4
Electrical Products	1.9	2.0	2.5	3.4	4.1	4.3	4.5	4.5	4.6
Non-Metallic Mineral Products	0.9	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Refined Petroleum and Coal	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Chemical Products	1.9	1.7	2.0	2.1	2.0	1.9	2.0	2.0	2.0
Other Manufacturing Industries	1.1	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.8
CONSTRUCTION	6.3	6.0	5.5	6.1	6.1	6.1	6.1	6.0	5.9
UTILITIES	2.5	2.7	3.0	2.7	2.6	2.5	2.4	2.3	2.2
SERVICES	49.9	52.1	54.0	53.7	55.5	55.9	56.4	57.2	57.8
Transportation & Communication	5.8	6.0	7.2	7.2	7.6	7.8	8.1	8.3	8.5
Trade	11.3	11.3	10.8	11.1	11.5	11.6	11.5	11.3	11.2
Finance, Insurance & Real Estate	13.7	14.5	15.7	15.8	16.0	16.2	16.6	17.2	17.6
Community, Business & Personal Services	19.0	20.2	20.4	19.6	20.3	20.3	20.3	20.4	20.5
PUBLIC ADMINISTRATION	7.2	7.5	6.6	6.1	5.5	5.1	4.8	4.5	4.2
TOTAL ECONOMY	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1.5 ENERGY

	Actual					Forecast				
	1988	1989	1990	1991	1992	1991-1995	1996-2000	2001-2005	2006-2010	2011-2025
	dollars					<annual percentage change>				
WORLD OIL PRICES										
$ per Barrel										
International Oil Price										
FOB Cost US Imports										
Annual Average Price										
Current US Dollars	13.25	17.00	18.20	19.30	20.60	8.2	9.2	7.3	7.3	6.0
Constant US 1989 Dollars	13.80	17.00	17.35	17.75	18.15	2.7	2.7	1.0	1.0	0.5
West Texas Intermediate										
at Chicago										
Current US Dollars	16.60	19.50	19.95	21.15	22.50	8.0	8.9	7.2	7.2	6.0
Constant US 1989 Dollars	17.28	19.50	19.05	19.45	19.85	2.5	2.5	0.9	0.9	0.5
CANADIAN CRUDE OIL										
AND NATURAL GAS PRICES										
Canadian $ per Barrel:										
Ontario Refiners' Acquisition										
Cost (Light Crude)										
Annual Average Price										
Current Dollars	20.65	22.95	24.65	27.05	29.30	9.0	9.5	7.2	7.5	6.0
Constant 1989 Dollars	21.85	22.95	23.45	24.50	25.30	2.6	2.9	0.9	1.2	0.6
Natural Gas:										
Canadian $ per Million Btu:										
Average Wholesale Price										
at Toronto[1]										
Annual Average Price										
Current Dollar	3.35	2.92	3.06	3.32	3.65	11.0	13.0	7.8	8.1	6.3
Constant 1989 Dollars	3.54	2.92	2.91	3.00	3.15	4.5	6.3	1.4	1.7	0.9

[1] The difference in estimated wholesale price of natural gas at Toronto from the last year forecast results from the change in contractual arragements between WGM and LDCs and a more precise definition.